

| Ref # | Hits | Search Query  | DBs                | Default Operator | Plurals | Time Stamp       |
|-------|------|---|--------------------|------------------|---------|------------------|
| S1    | 165  | 398/202   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:41 |
| S2    | 51   | 398/208   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:41 |
| S3    | 48   | 398/212   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:41 |
| S4    | 228  | S1 S2 S3  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:41 |
| S5    | 105  | S4 and optim\$7                                       | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:42 |
| S6    | 53   | S4 and optim\$7 and intensity                         | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:42 |
| S7    | 3248 | psf (point near spread near function)                 | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:42 |
| S8    | 0    | S6 and S7   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:44 |
| S9    | 0    | S5 and S7   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:45 |
| S10   | 10   | 398/125   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:45 |
| S11   | 238  | S1 S2 S3 S10  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:45 |
| S12   | 109  | S11 and optim\$7                                      | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:45 |
| S13   | 53   | S11 and optim\$7 and intensity                        | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 15:12 |
| S14   | 0    | S12 and S7  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:46 |
| S15   | 238  | S1 S2 S3 S10  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:47 |
| S16   | 0    | S15 and S7  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:47 |
| S17   | 10   | "398".clas. and S7                                    | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:51 |
| S18   | 685  | S7 and mask   | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:53 |
| S19   | 831  | S7 and mask\$3  | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:53 |
| S20   | 550  | S7 and mask\$3 and detect\$4                          | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:53 |
| S21   | 693  | S7 and mask\$3 and (detect\$4 receiv\$4)              | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:53 |
| S22   | 552  | S7 and mask\$3 and (detect\$4 receiv\$4) and optic\$4 | US-PGPUB;<br>USPAT | OR               | OFF     | 2005/06/01 14:53 |

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|-----|--------|---|-----------------|----|-----|------------------|
| S23 | 89     | S7 and mask\$3 and (detect\$4 receiv\$4) and optic\$4 and (optim\$7 with performance)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 14:55 |
| S24 | 234    | S7 and mask\$3 and ((detect\$4 receiv\$4) with array)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 14:55 |
| S25 | 5      | S7 and mask\$3 and ((detect\$4 receiv\$4) with array with adapt\$5)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 14:59 |
| S26 | 32     | S7 and ((detect\$4 receiv\$4) with array with adapt\$5)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:03 |
| S27 | 663    | S7 and ((detect\$4 receiv\$4) with array)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:03 |
| S28 | 112518 | ((detect\$4 receiv\$4) with array)  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:03 |
| S29 | 39878  | ((detect\$4 receiv\$4) with ((real near time) (real-time)))   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:05 |
| S30 | 74     | S7 and S28 and S29  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:04 |
| S31 | 183220 | (real near time) (real-time)  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:05 |
| S32 | 257    | S7 and S31 and S28  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:06 |
| S33 | 235    | S7 and S31 and S28 and (optim\$7 enhanc\$6)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:07 |
| S34 | 175    | S7 and S31 and S28 and (optim\$7 enhanc\$6) and optic\$4  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:07 |
| S35 | 3      | S7 and S31 and S28 and (optim\$7 enhanc\$6) and "398".clas.   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:08 |
| S36 | 235    | S7 and S31 and S28 and (optim\$7 enhanc\$6)   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:09 |
| S37 | 187    | S7 and S31 and S28 and (optim\$7 enhanc\$6) and intensit\$4   | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:09 |
| S38 | 0      | S7 and S31 and S28 and (optim\$7 enhanc\$6) and intensit\$4 and optic\$4  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:09 |
| S39 | 152    | S7 and S31 and S28 and (optim\$7 enhanc\$6) and intensit\$4 and optic\$4  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:10 |
| S40 | 147    | S7 and S31 and S28 and ((optim\$7 enhanc\$6 improv\$5 increas\$5) with (performance signal\$1 receiv\$4 detect\$4)) and intensit\$4 and optic\$4                  | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:11 |
| S41 | 160    | S7 and S31 and S28 and ((optim\$7 enhanc\$6 improv\$5 increas\$5) with (performance signal\$1 receiv\$4 detect\$4 noise system snr)) and intensit\$4 and optic\$4 | US-PGPUB; USPAT | OR | OFF | 2005/06/01 15:12 |

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|-----|-------|--|------------------------------|----|-----|------------------|
| S42 | 2099  | adapt\$4 with detect\$4 with array\$1  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:29 |
| S43 | 958   | adapt\$4 with detector\$1 with array\$1  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:29 |
| S44 | 12    | (adapt\$4 with detector\$1 with array\$1) same S31   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:30 |
| S45 | 18113 | (signal\$1 with process\$4) and (detect\$4 near2 array\$2)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:49 |
| S46 | 277   | (signal\$1 with process\$4) and (detect\$4 near2 array\$2) and S7  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:57 |
| S47 | 3845  | (signal\$1 with process\$4) and (detect\$4 near2 array\$2) and (measur\$6 with intensit\$5)  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 15:59 |
| S48 | 1582  | (signal\$1 with process\$4) and (detect\$4 near2 array\$2) and (multipl\$7 same weight\$4)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 16:00 |
| S49 | 228   | (signal\$1 with process\$4) and (detect\$4 near2 array\$2) and (multipl\$7 same weight\$4 same factor)                                   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 16:00 |
| S50 | 248   | (signal\$1 with process\$4) and (detect\$4 near2 array\$2) and (multipl\$7 same weight\$4 same ((optim\$6 enhance\$5)))                  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/01 16:01 |
| S51 | 1     | ("5446574").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/02 18:23 |
| S52 | 15    | vilnrotter   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:10 |
| S53 | 571   | (detect\$4 near2 array) and (signal with mask)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:10 |
| S54 | 197   | (detect\$4 near2 array) and (signal with mask) and weight\$4   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:11 |
| S55 | 145   | (detect\$4 near2 array) and (signal with mask) and weight\$4 and (enhanc\$5 optim\$6)  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:12 |
| S56 | 118   | (detect\$4 near2 array) and (signal with mask) and weight\$4 and (enhanc\$5 optim\$6) and intensit\$4                                    | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:17 |
| S57 | 976   | (detect\$4 near2 array) and weight\$4 and (enhanc\$5 optim\$6) and (intensit\$4 with pixel\$5)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:18 |
| S58 | 480   | (detect\$4 near2 array) and weight\$4 and ((enhanc\$5 optim\$6) with (signal\$1 channel\$1 information)) and (intensit\$4 with pixel\$5) | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 12:19 |

|     |    |   |                        |    |     |                  |
|-----|----|---|------------------------|----|-----|------------------|
| S59 | 0  | (detect\$4 near2 array) and weight\$4 and ((enhanc\$5 optim\$6) with (signal\$1 channel\$1 information)) and (intensit\$4 with pixel\$5) and "398".clas.  | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 12:19 |
| S60 | 6  | (detect\$4 near2 array) and ((enhanc\$5 optim\$6) with (signal\$1 channel\$1 information)) and (intensit\$4 with pixel\$5) and "398". clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 12:26 |
| S61 | 3  | ("5121985"   "5796479"   "6504976").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 12:22 |
| S62 | 0  | ("6704509").URPN.   | USPAT                  | OR | OFF | 2005/06/03 12:22 |
| S63 | 88 | (detect\$4 near2 array) and ((enhanc\$5 optim\$6) with (signal\$1 channel\$1 information)) and (intensit\$4) and "398".clas.  | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 12:27 |
| S64 | 72 | (detect\$4 near2 array) and ((enhanc\$5 optim\$6) with (signal\$1 channel\$1 information)) and (intensit\$4) and ((signal\$1 with process\$5) (signal\$2process\$4)) and "398".clas.  | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 12:27 |
| S65 | 67 | S64 not S60   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 13:34 |
| S66 | 1  | ("20010048538").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 16:37 |
| S67 | 1  | ("5757425").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 15:44 |
| S68 | 1  | ("6788895").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 15:44 |
| S69 | 21 | ("4682323"   "5200631"   "5241610"   "5420954"   "5428704"   "5506383"   "5568574"   "5625734"   "5631988"   "5638469"   "5748818"   "5757425"   "5761350"   "5857042"   "5858814"   "5896213"   "5909303"   "5923796"   "5930588"   "6025206"   "6096567").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 16:31 |
| S70 | 1  | ("5099114").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 16:31 |
| S71 | 1  | ("5867290").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/03 16:40 |

|     |         |   |                              |    |     |                  |
|-----|---------|---|------------------------------|----|-----|------------------|
| S72 | 1       | ("6307854").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/03 16:43 |
| S73 | 702     | weight\$4 with detect\$4 with array   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 16:44 |
| S74 | 253     | (weight\$4 with detect\$4 with array)<br>and (detect\$4 with intensit\$4)             | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 16:45 |
| S75 | 50      | (weight\$4 with detect\$4 with array)<br>and (detect\$4 with intensit\$4) and<br>mask | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 16:44 |
| S76 | 1       | ("5757425").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/03 17:50 |
| S77 | 1       | ("5757425").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/03 17:54 |
| S78 | 1       | ("6091523").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/03 17:54 |
| S79 | 2       | ("6091523").URPN.   | USPAT                        | OR | OFF | 2005/06/03 18:31 |
| S80 | 3       | "6091523"   | USPAT                        | OR | OFF | 2005/06/03 18:31 |
| S81 | 1       | ("6091523").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/03 18:40 |
| S82 | 18463   | (detector near2 array)  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:40 |
| S83 | 1452651 | weight\$4   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:40 |
| S84 | 66748   | detect\$4 with intensit\$4  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:41 |
| S85 | 2722835 | (improv\$4 enhanc\$4 optim\$6)  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:41 |
| S86 | 17853   | S83 and S84 and S85   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:41 |
| S87 | 2114    | S82 and S86   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:42 |
| S88 | 702     | (detect\$4 with array with weight\$4)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:42 |
| S89 | 227     | S88 and S84 and S85   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:42 |
| S90 | 79      | S88 and S84 and S85 and (signal<br>near2 process\$4)                                  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:43 |
| S91 | 135     | S88 and S84 and S85 and (signal\$1<br>near2 process\$4)                               | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:43 |
| S92 | 153     | S88 and S84 and (signal\$1 near2<br>process\$4)                                       | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/03 18:43 |

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|------|---------|---|------------------------|----|-----|------------------|
| S93  | 11      | S88 and S84 and (signal\$1 near2 process\$4) and (optic\$4 near2 receiver)  | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:45 |
| S94  | 1849    | (detector near2 array) and (signal\$1 near2 process\$4) and (detect\$4 with intensit\$4) and (combin\$4) and (select\$4) and separat\$4             | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:47 |
| S95  | 108     | (detector near2 array) and (signal\$1 near2 process\$4) and (detect\$4 with intensit\$4) and ((combin\$4) same (select\$4) same separat\$4)         | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:50 |
| S96  | 556     | (detector near2 array) and (signal\$1 near2 process\$4) and (detect\$4 with intensit\$4) and ((weight\$4 with detect\$4) or (weight\$4 with array)) | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:50 |
| S97  | 1       | S96 and "398".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:51 |
| S98  | 20      | S96 and "359".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 20:17 |
| S99  | 7       | S96 and "385".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:51 |
| S100 | 0       | S96 and "370".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/03 18:51 |
| S101 | 1       | ("5867290").PN.   | US-PGPUB; USPAT; USOCR | OR | OFF | 2005/06/07 11:13 |
| S102 | 63390   | weight\$4 and multipl\$7 and detect\$4 and array  | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:13 |
| S103 | 9585    | weight\$4 and multipl\$7 and (detect\$4 near2 array)  | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:13 |
| S104 | 1488919 | weight\$4 and multipl\$7 and (detect\$4 near2 array) signal\$1  | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:13 |
| S105 | 8648    | weight\$4 and multipl\$7 and (detect\$4 near2 array) and signal\$1  | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:14 |
| S106 | 1677    | weight\$4 and multipl\$7 and (detect\$4 near2 array) and mask   | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:14 |
| S107 | 6       | weight\$4 and multipl\$7 and (detect\$4 near2 array) and mask and "398".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:16 |
| S108 | 7       | weight\$4 and (detect\$4 near2 array) and mask and "398".clas.  | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:16 |
| S109 | 27      | weight\$4 and (detect\$4 near2 array) and intensit\$4 and "398".clas.   | US-PGPUB; USPAT        | OR | OFF | 2005/06/07 11:16 |
| S110 | 10      | ("5099114").URPN.   | USPAT                  | OR | OFF | 2005/06/07 11:28 |

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|----------|-------|--|------------------------------|----|-----|------------------|
| S11<br>1 | 15    | ("3689772"   "3777149"   "3777150"<br>  "3840741"   "4050782"  <br>"4127320"   "4841140"   "4945230"<br>  "4999489"   "5099114"  <br>"5164581"   "5369511"   "5625729"<br>  "5760391"   "6400450").PN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/07 11:29 |
| S11<br>2 | 10    | ("5099114").URPN.  | USPAT                        | OR | OFF | 2005/06/07 11:37 |
| S11<br>3 | 24059 | detect\$4 and (weight\$4 with<br>factor\$4)  | USPAT                        | OR | OFF | 2005/06/07 11:37 |
| S11<br>4 | 43    | detect\$4 and (weight\$4 with<br>factor\$4) and "398".clas.  | USPAT                        | OR | OFF | 2005/06/07 11:38 |
| S11<br>5 | 1     | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4) and "398".<br>clas.  | USPAT                        | OR | OFF | 2005/06/07 11:39 |
| S11<br>6 | 1007  | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4)  | USPAT                        | OR | OFF | 2005/06/07 11:39 |
| S11<br>7 | 644   | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4) and<br>intensit\$4   | USPAT                        | OR | OFF | 2005/06/07 11:40 |
| S11<br>8 | 456   | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4) and<br>intensit\$4 and optic\$4  | USPAT                        | OR | OFF | 2005/06/07 11:40 |
| S11<br>9 | 165   | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4) and<br>(combin\$4 with signal\$1)  | USPAT                        | OR | OFF | 2005/06/07 11:41 |
| S12<br>0 | 56    | (detect\$4 near2 array) and<br>(weight\$4 with factor\$4) and<br>(combin\$4 with signal\$1 with<br>output)   | USPAT                        | OR | OFF | 2005/06/07 11:45 |
| S12<br>3 | 94783 | (array with (photo-detect\$4<br>photodetect\$4 detect\$4 emit\$4<br>photo-diode\$1 photodiode\$1<br>diode\$1))   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:54 |
| S12<br>4 | 854   | S123 with weight\$4  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:43 |
| S12<br>5 | 46    | S123 with weight\$4 with factor\$1   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:50 |
| S12<br>6 | 15    | vilnrotter   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:54 |
| S12<br>7 | 16104 | (array with (photo-detect\$4<br>photodetect\$4 detect\$4 emit\$4<br>photo-diode\$1 photodiode\$1<br>diode\$1)) and (signal\$1 with<br>process\$4) and lens   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:55 |

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| S12<br>8 | 5084 | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and (signal\$1 with process\$4) and lens and weight\$4                                       | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 13:56 |
| S12<br>9 | 695  | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and ((signal\$1 with process\$4) same weight\$4) and lens                                    | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:18 |
| S13<br>0 | 2102 | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and ((signal\$1 with process\$4) same weight\$4)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:19 |
| S13<br>1 | 865  | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and ((signal\$1 with process\$4) same weight\$4) and ((enhance\$4 optim\$6) with signal\$1)  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:20 |
| S13<br>2 | 455  | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and ((signal\$1 with process\$4) same weight\$4) and ((enhance\$4 optim\$6) near2 signal\$1) | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:23 |
| S13<br>3 | 37   | (array with (photo-detect\$4 photodetect\$4 detect\$4 emit\$4 photo-diode\$1 photodiode\$1 diode\$1)) and ((signal\$1 with process\$4) same weight\$4) and ((mask) near2 signal\$1)                | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:25 |
| S13<br>4 | 1    | ("5099114").PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/07 14:33 |
| S13<br>5 | 2220 | nyquist near rate  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:33 |
| S13<br>6 | 633  | (nyquist near rate) same (signal\$1 same process\$4)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 14:34 |
| S13<br>7 | 2220 | nyquist near rate  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:11 |
| S13<br>8 | 52   | (advantage\$1 benefit\$1) with (nyquist near rate)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:48 |
| S13<br>9 | 765  | ((wideband) (wide near band) (wide-band)) near receiver)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:49 |



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|----------|-------|---|------------------------------|----|-----|------------------|
| S14<br>0 | 95    | (((((wideband) (wide near band) (wide-band))) near receiver)) with detect\$4  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:49 |
| S14<br>1 | 765   | ((wideband) (wide near band) (wide-band)) near receiver   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:55 |
| S14<br>2 | 11    | (advantage\$1 benefit\$1) with S141   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 16:50 |
| S14<br>3 | 36    | S141 and "398".clas.  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:00 |
| S14<br>4 | 17574 | (signal\$1 with mask)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:00 |
| S14<br>5 | 759   | (signal\$1 with mask) same threshold  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:00 |
| S14<br>6 | 63    | (signal\$1 with mask) same threshold same intensity   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:00 |
| S14<br>7 | 26    | (signal\$1 with mask) same threshold same intensity same detect\$   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:09 |
| S14<br>8 | 1645  | (signal\$1 with process\$4) same ((bit near error near rate) (ber))   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:10 |
| S14<br>9 | 341   | (signal\$1 with process\$4) same ((optim\$6 improv\$4 increas\$4) with ((bit near error near rate) (ber)))                          | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:11 |
| S15<br>0 | 210   | (signal\$1 with process\$4) same ((optim\$6 improv\$4 decreas\$4) with ((bit near error near rate) (ber)))                          | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:11 |
| S15<br>1 | 329   | (signal\$1 with process\$4) same ((optim\$6 improv\$4 decreas\$4 reduc\$4) with ((bit near error near rate) (ber)))                 | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:29 |
| S15<br>2 | 21    | (signal\$1 with process\$4) same ((optim\$6 improv\$4 decreas\$4 reduc\$4) with ((bit near error near rate) (ber))) and "398".clas. | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:12 |
| S15<br>3 | 32    | dsp with ber  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:17 |
| S15<br>4 | 309   | signal with process\$4 with ber   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:17 |
| S15<br>5 | 19096 | photomultiplier\$1  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:30 |
| S15<br>6 | 269   | (advantage\$1 benefit\$1) with photomultiplier\$1   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:36 |
| S15<br>7 | 123   | photomultiplier\$1 and "398".clas.  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 17:50 |
| S15<br>8 | 1     | ("6864916").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/07 17:59 |

|          |      |  |                              |    |     |                  |
|----------|------|--|------------------------------|----|-----|------------------|
| S15<br>9 | 2    | ((("5896211") or ("5808760")).PN.  | US-PGPUB;<br>USPAT;<br>USOCR | OR | OFF | 2005/06/07 18:02 |
| S16<br>0 | 1509 | (signal with process\$4) same ((BER)<br>(bit near error near rate))  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 18:02 |
| S16<br>1 | 315  | (signal with process\$4) same<br>((improv\$5 reduc\$4 optim\$5<br>decreas\$5) with ((BER) (bit near<br>error near rate)))  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 18:04 |
| S16<br>2 | 188  | (signal with process\$4) same<br>((improv\$5 reduc\$4 optim\$5<br>decreas\$5) with ((BER) (bit near<br>error near rate))) same (receiv\$4)   | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 18:04 |
| S16<br>3 | 17   | (US-20020154315-\$ or<br>US-20020146206-\$ or<br>US-20020063923-\$).did. or<br>(US-6504515-\$ or US-6078356-\$ or<br>US-6864916-\$ or US-6859275-\$ or<br>US-6239878-\$ or US-6377656-\$ or<br>US-6744950-\$ or US-6819874-\$ or<br>US-6704509-\$ or US-6091523-\$ or<br>US-5867290-\$ or US-5896211-\$ or<br>US-5817462-\$ or US-5105380-\$).<br>did. | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 18:22 |
| S16<br>4 | 7    | S163 and mask  | US-PGPUB;<br>USPAT           | OR | OFF | 2005/06/07 18:22 |